

## WHAT IS CLAIMED IS:

1. A focus detection device comprising:

a solid-state image sensing device including a first photoelectric conversion element array which photoelectrically converts a first light beam passing through a first area of an exit pupil of a photographing optical system, and a second photoelectric conversion element array which photoelectrically converts a second light beam passing through a second area of the exit pupil which is different from the first area; and

a computing device which detects a focus state of the photographing optical system by computing a correlation between a first image signal which is an image signal from the first photoelectric conversion element array and a second image signal which is an image signal from the second photoelectric conversion element array in accordance with a position of a focus detection area in an image sensing frame on the basis of a ratio between a shift amount of a focus detection opening pupil, formed when limitation is imposed by an exit window of the photographing optical system, with respect to an optical axis, and a width of the focus detection opening pupil.

2. A focus detection method wherein a first light beam passing through a first area of an exit pupil of a photographing optical system is photoelectrically

converted by a first photoelectric conversion element array, a second light beam passing through a second area of the exit pupil which is different from the first area is photoelectrically converted by a second  
5 photoelectric conversion element array, and a focus state of the photographing optical system is detected by computing a correlation between a first image signal which is an image signal from the first photoelectric conversion element array and a second image signal  
10 which is an image signal from the second photoelectric conversion element array in accordance with a position of a focus detection area in an image sensing frame on the basis of a ratio between a shift amount of a focus detection opening pupil, formed when limitation is  
15 imposed by an exit window of the photographing optical system, with respect to an optical axis, and a width of the focus detection opening pupil.

3. A program causing a computer to execute a focus detection method defined in claim 2.

20 4. A storage medium computer-readably storing a program defined in claim 3.